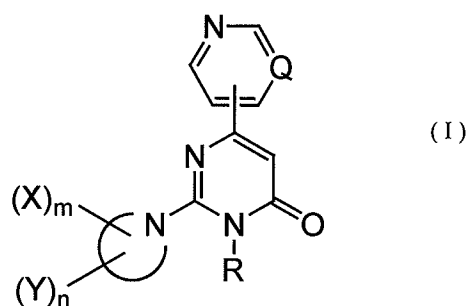


AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Currently Amended) A pyrimidone derivative represented by formula (I) or a salt thereof:



wherein Q represents CH or nitrogen atom;

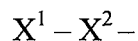
R represents a C₁-C₁₂ alkyl group;

the ring of:



represents piperazine ring or piperidine ring;

each X independently represents



wherein X¹ represents

an optionally partially hydrogenated C₆-C₁₀ aryl ring which may be substituted;

an optionally substituted heterocyclic ring having 1 to 4 hetero atoms selected from oxygen atom, sulfur atom, and nitrogen atom, and having 5 to 10 ring-constituting atoms in total;

a group represented by $-N(Ra)(Rb)$

wherein Ra and Rb are the same or different and each is

hydrogen,

a C₁-C₄ alkyl group,

an aralkyl group which may be substituted, ~~or~~

an aryl group which may be substituted, or

C₁-C₈ alkylcarbonyl group;

X² represents

a bond,

a C₁-C₄ alkylene group, or

N-Rd

[[()]] wherein Rd represents

a hydrogen atom,

a C₁-C₄ alkyl group, or

C₁-C₈ alkylcarbonyl group [[()]];

m represents an integer of 1 to 3;

each Y independently represents

a hydroxy group, or

a C₁-C₈ alkyl group;

n represents an integer of 0 to 8;

when the ring represented by X or X¹ has one or more substituents, the ring may have one or more substituents selected from:

a C₁-C₅ alkyl group;

C₃-C₆ cycloalkyl group;
a C₃-C₆ cycloalkyl-C₁-C₄ alkyl group;
a C₁-C₄ hydroxyalkyl group;
a halogen atom;
a C₁-C₅ halogenated alkyl group;
cyano group;
nitro group;
formyl group;
a benzene ring which may be substituted;
a naphthalene ring which may be substituted;
an optionally substituted heterocyclic ring having 1 to 4 hetero atoms selected from oxygen atom, sulfur atom and nitrogen atom, and having 5 to 10 ring-constituting atoms in total;
an amino group;
dimethylamino group;
an N-C₃-C₆ cycloalkyl-N-C₁-C₄ alkylaminoalkyl group wherein said C₁-C₄ alkyl may be substituted by hydroxy group or C₁-C₄ alkoxy group;
a C₁-C₅ monoalkylaminomethyl group;
a C₂-C₁₀ dialkylaminomethyl group;
pyrrolidinylmethyl group;
piperidinylmethyl group;
morpholinomethyl group;
piperazinylmethyl group;
pyrrolylmethyl group;

imidazolymethyl group;

pyrazolymethyl group;

triazolymethyl group;

and a group of the formula -E-Rf wherein

E represents O, S, SO, SO₂, CO or N(R⁴) and

Rf represents

a C₁-C₅ alkyl group,

a C₄-C₇ cycloalkyl group,

a C₄-C₇ cycloalkylalkyl group,

a C₁-C₅ hydroxyalkyl group,

a benzene ring which may be substituted,

a naphthalene ring which may be substituted,

an optionally substituted heterocyclic ring having 1 to 4 hetero atoms selected from oxygen atom, sulfur atom and nitrogen atom, and having 5 to 10 ring-constituting atoms in total,

an N-C₃-C₆ cycloalkyl-N-C₁-C₄ alkylaminoalkyl group,

a C₁-C₅ monoalkylaminoalkyl group,

C₂-C₁₀ dialkylaminoalkyl group,

pyrrolidinylmethyl group,

piperidinylmethyl group,

morpholinomethyl group,

piperazinylmethyl group,

pyrrolylmethyl group,

imidazolymethyl group,

pyrazolylmethyl group or
triazolylmethyl group,
C₁-C₈ alkylcarbonyl group,
C₃-C₈ cycloalkylcarbonyl group which may be substituted,
aralkylcarbonyl group which may be substituted,
C₆-C₁₀ arylcarbonyl group which may be substituted,
C₁-C₈ alkylsulfonyl group,
C₃-C₈ cycloalkylsulfonyl group which may be substituted,
aralkylsulfonyl group which may be substituted,
C₆-C₁₀ arylsulfonyl group which may be substituted,
C₁-C₈ alkyloxycarbonyl group,
C₃-C₈ cycloalkyloxycarbonyl group which may be substituted,
aralkyloxycarbonyl group which may be substituted,
C₆-C₁₀ aryloxycarbonyl group which may be substituted,
aminocarbonyl,
N-C₁-C₈ alkylaminocarbonyl group,
N, N'-C₁-C₈ dialkylaminocarbonyl group,
N-C₁-C₈ alkyl-N'-C₃-C₈ cycloalkylaminocarbonyl group,
N-C₁-C₈ alkyl-N'-aralkylaminocarbonyl group,
N-C₁-C₈ alkyl-N'-C₆-C₁₀ arylaminocarbonyl group,
C₃-C₈ cycloalkylaminocarbonyl group,
N,N'-C₃-C₈ dicycloalkylaminocarbonyl group,
N-C₃-C₈ cycloalkyl-N'-aralkylaminocarbonyl group,

N-C₃-C₈ cycloalkyl-N'-C₆-C₁₀ arylaminocarbonyl group,

aralkylaminocarbonyl group,

N,N'-diaralkylaminocarbonyl group,

N-aralkyl- N'-C₆-C₁₀ arylaminocarbonyl group,

C₆-C₁₀ arylaminocarbonyl group,

N,N'-C₆-C₁₀ diarylaminocarbonyl group, and

R⁴ represents

a hydrogen atom,

a C₁-C₄ alkyl group,

an aralkyl group,

C₃-C₈ cycloalkyl group or

an aryl group which may be substituted; and

when the ring represented by X, or X¹ has one or more substituents, the substituent may further have one or more substituents selected from:

a C₁-C₅ alkyl group;

C₃-C₆ cycloalkyl group;

a C₃-C₆ cycloalkyloxy group;

C₁-C₄ hydroxyalkyl group;

a C₁-C₅ alkoxy group;

a C₄-C₇ cycloalkylalkoxy group;

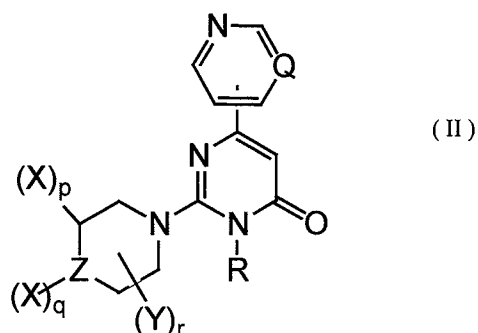
a C₁-C₅ alkylthio group;

a C₁-C₅ alkylsulfonyl group;

a halogen atom;

a C₁-C₅ halogenated alkyl group;
a C₁-C₅ halogenated alkoxy group;
hydroxyl group;
cyano group;
nitro group;
formyl group;
a C₂-C₆ alkylcarbonyl group;
amino group;
a C₁-C₅ monoalkylamino group;
a C₂-C₁₀ dialkylamino group;
a cyclic amino group;
a C₂-C₁₀ monoalkylaminomethyl group;
a C₃-C₁₁ dialkylaminomethyl group;
a phenyl group;
an aralkyloxy group;
an aralkyloxycarbonyl group;
an C₂-C₄ alkanoyloxy-C₁-C₄ alkyl group;
an alkanoylamino group;
N-C₁-C₄ alkyl-N-alkanoylamino;
N-C₁-C₄ alkyl-N-heterocyclic ring amino group; and
a diheterocyclic ring amino group.

2. (Previously Presented) The pyrimidone derivative or the salt thereof according to claim 1 having the following formula(II)



wherein Q, R, X and Y are the same as those defined in claim 1;

p is 0 or 1; q is 0 or 1; r is an integer of 0 to 6; p+q is 1 or 2;

and Z represents N or CZ¹ wherein Z¹ represents hydrogen atom or Y.

3. (Previously Presented) The pyrimidone derivative or the salt thereof according to claim 2, wherein R is a C₁-C₃ alkyl group.

4. (Previously Presented) The pyrimidone derivative or the salt thereof according to claim 3, wherein R is methyl group or ethyl group; Y is in 3-, 4- or 5-position of the piperazine ring or the piperidine ring; p+q is 1; and r is an integer of 0 to 3.

5. (Previously Presented) The pyrimidone derivative or the salt thereof according to claim 4, wherein X is a C₁-C₈ alkyl group which may be substituted or a C₆-C₁₀ aryl ring which may be substituted; Y is a C₁-C₆ alkyl group; p is 1; q is 0; r is an integer of 0 to 3; and Z is N or CH.

6. (Previously Presented) The pyrimidone derivative or the salt thereof according to claim 5, wherein X is a benzene ring which may be substituted, a benzyl group which may be substituted; Y is a methyl group; Z is N and r is 0 or 1.

7. (Previously Presented) The pyrimidone derivative or the salt thereof according to claim 4, wherein X is a benzene ring which may be substituted, or a benzyl group which may be substituted; Y is a methyl group which may be substituted; Z is N and p is 0.

8. (Previously Presented) The pyrimidone derivative or the salt thereof according to claim 4, wherein X is a C₁-C₈ alkyl group substituted by a benzene ring which may be substituted or a benzene ring which may be substituted; Y is a hydroxy group; Z is CH or C-Y and r is 0 or 1.

9. (Previously Presented) The pyrimidone derivative or the salt thereof according to claim 8, wherein X is a benzyl group which may be substituted or a benzene ring which may be substituted; Y is a hydroxy group; Z is CH or C-Y and r is 0 or 1.

10. (Original) A pyrimidone derivative which is selected from the group consisting of:

2-(3-Phenylpiperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(4-Fluorophenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(3-Fluorophenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(2-Fluorophenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(4-Chlorophenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one; (*S*)-2-(3-(4-Chlorophenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-

one;

(*R*)-2-(3-(4-Chlorophenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(3-Chlorophenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(2-Chlorophenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(4-Bromophenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(3-Bromophenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(2-Bromophenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(4-Methylphenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(3-Methylphenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(2-Methylphenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(4-Cyanophenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(3-Cyanophenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(2-Cyanophenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(4-Methoxyphenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(3-Methoxyphenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(2-Methoxyphenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(2-Ethoxyphenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(5-Fluoro-2-methoxyphenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(4-Fluoro-3-methoxyphenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(4-Fluoro-2-methoxyphenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

(*S*)-2-(3-(4-Fluoro-2-methoxyphenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

(*R*)-2-(3-(4-Fluoro-2-methoxyphenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(4-Chloro-2-methoxyphenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(4-Fluoro-2-methylphenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(2-Fluoro-6-methoxyphenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(5-Bromo-2-methoxyphenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(2-Bromo-4-fluorophenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(2-Chloro-6-fluorophenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(2,4-Difluorophenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(2,6-Difluorophenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(2,6-Dichlorophenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(2,4-Dimethoxyphenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(3,4-Dimethoxyphenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(2,5-Dimethoxyphenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(2,6-Dimethoxyphenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-

4-one;

2-(3-(2,4-Difluoro-6-methoxyphenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;(1034)

2-(3-(5-Cyano-2-methoxyphenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(4-Cyano-2-methoxyphenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(1-Naphthyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(2-Naphthyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(2,3-Dihydrobenzofuran-7-yl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(Benzofuran-2-yl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

(*S*)-2-(3-(Benzofuran-2-yl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(4-(Pyrrolidin-1-yl-methyl)phenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(4-(Pyrrolidin-1-yl)phenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(2-methoxy-4-(pyrrolidin-1-yl)phenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(2-methoxy-5-(pyrrolidin-1-yl)phenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(4-(Phenyl)phenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(4-(4-Fluorophenyl)phenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(4-(4-Methoxyphenyl)phenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(4-(2-Methoxyphenyl)phenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(4-(Morpholin-4-yl)phenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(4-(4-Methylpiperazin-1-yl)phenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(4-Phenylpiperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(4-Benzylpiperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(4-Benzoylpiperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(4-(1,2-Benzisothiazol-3-yl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(4-Methyl-3-phenylpiperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(4-Fluoro-2-methoxyphenyl)-4-methylpiperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

(*S*)-2-(3-(4-Fluoro-2-methoxyphenyl)-4-methylpiperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

(*R*)-2-(3-(4-Fluoro-2-methoxyphenyl)-4-methylpiperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(4-Acetyl-3-(4-fluoro-2-methoxyphenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-

3*H*-pyrimidin-4-one;

2-(4-Benzyl-3-(4-fluoro-2-methoxyphenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-

3*H*-pyrimidin-4-one;

2-(4-Benzyl-3-(ethoxycarbonyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-

pyrimidin-4-one;

2-(4-methyl-3-(1-naphthyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-

one;

2-(5,5-Dimethyl-3-(2-methoxyphenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-

pyrimidin-4-one;

2-(3-Phenylpiperidin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(4-Fluorophenyl)piperidin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(3-Fluorophenyl)piperidin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(2-Fluorophenyl)piperidin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(4-Chlorophenyl)piperidin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(4-Bromophenyl)piperidin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(4-Methoxyphenyl)piperidin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(3-Methoxyphenyl)piperidin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(2-Methoxyphenyl)piperidin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(4-((Pyrrolidin-1-yl)methyl)phenyl)piperidin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-

pyrimidin-4-one;

(*S*)-2-(3-(4-(Pyrrolidin-1-yl-methyl)phenyl)piperidin-1-yl)-3-methyl-6-(4-pyridyl)-

3*H*-pyrimidin-4-one;

(*R*)-2-(3-(4-(Pyrrolidin-1-yl-methyl)phenyl)piperidin-1-yl)-3-methyl-6-(4-pyridyl)-

3*H*-pyrimidin-4-one;

2-(3-Hydroxy-3-phenylpiperidin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-Phenylpiperazin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-pyrimidin-4-one;

2-(3-(4-Fluorophenyl)piperazin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-pyrimidin-4-one;

2-(3-(3-Fluorophenyl)piperazin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-pyrimidin-4-one;

2-(3-(2-Fluorophenyl)piperazin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-pyrimidin-4-one;

2-(3-(4-Chlorophenyl)piperazin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-pyrimidin-4-

one;

2-(3-(3-Chlorophenyl)piperazin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-pyrimidin-4-

one;

2-(3-(2-Chlorophenyl)piperazin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-pyrimidin-4-

one;

2-(3-(4-Bromophenyl)piperazin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-pyrimidin-4-one;

2-(3-(3-Bromophenyl)piperazin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-pyrimidin-4-one;

2-(3-(2-Bromophenyl)piperazin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-pyrimidin-4-one;

2-(3-(4-Cyanophenyl)piperazin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-pyrimidin-4-one;

2-(3-(3-Cyanophenyl)piperazin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-pyrimidin-4-one;

2-(3-(2-Cyanophenyl)piperazin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-pyrimidin-4-one;

2-(3-(4-Methoxyphenyl)piperazin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-pyrimidin-

4-one;

2-(3-(3-Methoxyphenyl)piperazin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-pyrimidin-

4-one;

2-(3-(2-Methoxyphenyl)piperazin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-pyrimidin-

4-one;

2-(3-(2-Ethoxyphenyl)piperazin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-pyrimidin-4-one;

2-(3-(6-Fluoro-2-methoxyphenyl)piperazin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-pyrimidin-4-one;

2-(3-(5-Fluoro-2-methoxyphenyl)piperazin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-pyrimidin-4-one;

2-(3-(4-Fluoro-2-methoxyphenyl)piperazin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-pyrimidin-4-one;

(*S*)-2-(3-(4-Fluoro-2-methoxyphenyl)piperazin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-pyrimidin-4-one;

(*R*)-2-(3-(4-Fluoro-2-methoxyphenyl)piperazin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-pyrimidin-4-one;

2-(3-(4-Chloro-2-methoxyphenyl)piperazin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-pyrimidin-4-one;

2-(3-(5-Bromo-2-methoxyphenyl)piperazin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-pyrimidin-4-one;

2-(3-(2,6-Dichlorophenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(2,4-Dimethoxyphenyl)piperazin-1-yl)-3-methyl-6-(4-pyridyl)-3*H*-pyrimidin-4-one;

2-(3-(3,4-Dimethoxyphenyl)piperazin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-pyrimidin-4-one;

2-(3-(2,5-Dimethoxyphenyl)piperazin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-pyrimidin-4-one;

2-(3-(2,6-Dimethoxyphenyl)piperazin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-pyrimidin-4-one;

2-(3-(2,4-Difluoro-6-methoxyphenyl)piperazin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-pyrimidin-4-one;

2-(3-(1-Naphthyl)piperazin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-pyrimidin-4-one;

2-(3-(2-Naphthyl)piperazin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-pyrimidin-4-one;

2-(3-(2,3-Dihydrobenzofuran-7-yl)piperazin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-pyrimidin-4-one;

2-(3-(Benzofuran-2-yl)piperazin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-pyrimidin-4-one;

2-(3-(4-(Pyrrolidin-1-yl-methyl)phenyl)piperazin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-pyrimidin-4-one;

2-(3-(4-(Pyrrolidin-1-yl)phenyl)piperazin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-pyrimidin-4-one;

2-(3-(2-methoxy-4-(pyrrolidin-1-yl)phenyl)piperazin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-pyrimidin-4-one;

2-(3-(2-methoxy-5-(pyrrolidin-1-yl)phenyl)piperazin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-pyrimidin-4-one;

2-(3-(4-(Phenyl)phenyl)piperazin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-pyrimidin-4-one;

2-(3-(4-(4-Fluorophenyl)phenyl)piperazin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-

pyrimidin-4-one;

2-(3-(4-(4-Methoxyphenyl)phenyl)piperazin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-

pyrimidin-4-one;

2-(3-(4-(2-Methoxyphenyl)phenyl)piperazin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-

pyrimidin-4-one;

2-(3-(4-(Morpholin-4-yl)phenyl)piperazin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-

pyrimidin-4-one;

2-(3-(4-(4-Methylpiperazin-1-yl)phenyl)piperazin-1-yl)-3-methyl-6-(4-pyrimidyl)-

3*H*-pyrimidin-4-one;

2-(3-(4-Fluoro-2-methoxyphenyl)-4-methylpiperazin-1-yl)-3-methyl-6-(4-

pyrimidyl)-3*H*-pyrimidin-4-one;

(*S*)-2-(3-(4-Fluoro-2-methoxyphenyl)-4-methylpiperazin-1-yl)-3-methyl-6-(4-

pyrimidyl)-3*H*-pyrimidin-4-one;

(*R*)-2-(3-(4-Fluoro-2-methoxyphenyl)-4-methylpiperazin-1-yl)-3-methyl-6-(4-

pyrimidyl)-3*H*-pyrimidin-4-one;

2-(4-Acetyl-3-(4-fluoro-2-methoxyphenyl)piperazin-1-yl)-3-methyl-6-(4-

pyrimidyl)-3*H*-pyrimidin-4-one;

2-(4-Benzyl-3-(4-fluoro-2-methoxyphenyl)piperazin-1-yl)-3-methyl-6-(4-

pyrimidyl)-3*H*-pyrimidin-4-one;

2-(4-(4-Fluorophenyl)piperidin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-pyrimidin-4-one;

2-(4-Cyano-4-phenylpiperidin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-pyrimidin-4-one;

2-(4-(6-Fluorobenofuran-3-yl)piperidin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-

pyrimidin-4-one;

2-(3-(Benzoisoxazol-3-yl)piperidin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-pyrimidin-4-one;

(*S*)-2-(3-(Benzoisoxazol-3-yl)piperidin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-pyrimidin-4-one;

(*R*)-2-(3-(Benzoisoxazol-3-yl)piperidin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-pyrimidin-4-one;

2-(3-(6-Fluorobenzoisoxazol-3-yl)piperidin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-pyrimidin-4-one;

2-(4-(6-Fluorobenzoisoxazol-3-yl)piperidin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-pyrimidin-4-one;

2-(4-(5-Methylbenzofuran-3-yl)piperidin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-pyrimidin-4-one; and

2-(4-(6-Fluorobenzothiophene-3-yl)piperidin-1-yl)-3-methyl-6-(4-pyrimidyl)-3*H*-pyrimidin-4-one

or a salt thereof, ~~or a solvate thereof or a hydrate thereof.~~

11. (Previously Presented) A medicament composition comprising as an active ingredient at least one pyrimidone derivative represented by formula (I) or a salt thereof according to claim 1.

12. (Canceled)

13. (Currently Amended) A method for ~~preventive and/or~~ therapeutic treatment of a disease ~~caused by tau protein kinase 1 hyperactivity~~ selected from Alzheimer disease and non-insulin dependent diabetes comprising administering to a patient ~~an~~ a therapeutically effective amount of the composition according to claim 11 ~~to inhibit activity of tau protein kinase 1.~~

14. (Currently Amended) A method for ~~preventive and/or~~ therapeutic treatment of a neurodegenerative disease comprising administering to a patient a ~~preventively and/or~~ therapeutically effective amount of the composition according to claim 11, wherein the neurodegenerative disease is selected from Alzheimer disease, ischemic cerebrovascular accidents, Down syndrome, cerebral bleeding due to cerebral amyloid angiopathy, progressive supranuclear palsy, subacute sclerosing panencephalitic parkinsonism, postencephalitic parkinsonism, pugilistic encephalitis, Guam parkinsonism-dementia complex, Lewy body disease, Pick's disease, corticobasal degeneration, frontotemporal dementia, vascular dementia, traumatic injuries, brain and spinal cord trauma, peripheral neuropathies, retinopathies, and glaucoma.

15. (Canceled)

16. (Currently Amended) A method for ~~preventive and/or~~ therapeutic treatment of a disease selected from non-insulin dependent diabetes, obesity, manic depressive illness, schizophrenia, and alopecia, ~~breast cancer, non-small cell lung carcinoma, thyroid cancer, T or B-cell leukemia, and a virus-induced tumor~~ comprising administering to a patient a ~~preventively and/or~~ therapeutically effective amount of the composition according to claim 11.